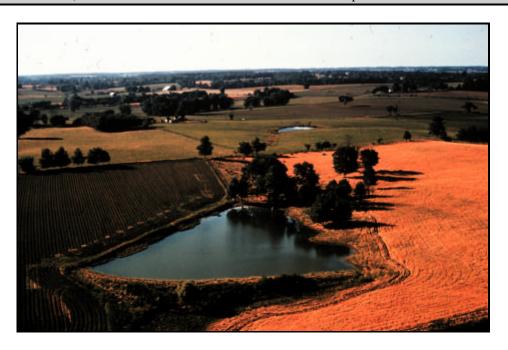
Dam, Floodwater Retarding

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 402



DEFINITION

A floodwater retarding structure is a single purpose dam designed for temporary storage and controlled released of floodwater.

PRACTICE INFORMATION

The purpose of a floodwater retarding structure is to reduce flood damage downstream by controlling the release rate of flood flows. These structures may also permit the use of more economical channel modifications and other downstream works of improvement.

This practice requires a very thorough site investigation to assure the following:

 Topographic, geologic, and soil conditions are satisfactory for the

- construction, operation, and maintenance of the structure (s).
- Conservation treatment above the proposed structure is satisfactory so that sediments in the runoff will not be excessive
- Environmental impacts are accounted for in the overall plan.

Dams constructed as floodwater retarding structures are normally part of a watershed plan sponsored by an organized group of local people with a vested interest in the natural resources of a specific watershed.

Additional information including design criteria and specifications are in the local NRCS Field Office Technical Guide.

The following pages list the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, and soil. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

CONSERVATION PRACTICE PHYSICAL EFFECT WORKSHEET

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	NOTES:
PRACTICE: 402 Dam, Floodwater Retarding	NOTES:
RESOURCE: SOIL	Help Message: Click on form field for choice lists. Ta
RESOURCE: SOIL RESOURCE CONCERN: EROSION	key to move around. "N/A" is the default.
	,
RESOURCE INDICATORS	PHYSICAL EFFECTS
SHEET AND RILL	N/A
WIND	N/A
EPHEMERAL GULLY	N/A
CLASSIC GULLY	N/A
STREAMBANK	N/A
IRRIGATION INDUCED	N/A
SOIL MASS MOVEMENT	N/A
ROADBANK/CONSTRUCTION	N/A
OTHER	
RESOURCE CONCERN: SOIL CONDITION	
SOIL TILTH	N/A
SOIL COMPACTION	N/A
SOIL CONTAMINATION	
• SALTS	N/A
• ORGANICS	N/A
FERTILIZERS	N/A
PESTICIDES	N/A
OTHER	
DEPOSITION/DAMAGE	
ONSITE	N/A
OFFSITE	N/A
DEPOSITION/SAFETY	
ONSITE	N/A
OFFSITE	N/A
OTHER	
RESOURCE: WATER	
RESOURCE CONCERN: WATER QUANTIT	ΓY
SEEPS	significant increase in seepage hazard
RUNOFF/FLOODING	sign. decrease in runoff/flooding
EXCESS SUBSURFACE WATER	situational concerning excess subsurface H2O
INADEQUATE OUTLETS	N/A
WATER MGT. IRRIGATION	
SURFACE	N/A
SPRINKLER	N/A
WATER MGT. NON-IRRIGATED	N/A
RESTRICTED FLOW CAPACITY (H20 convey.)	
• ONSITE	slight improvement in onsite drainage
OFFSITE	slight improvement in offsite drainage
RESTRICTED STORAGE	N/A

RESOURCE: WATER		
RESOURCE CONCERN: WATER		
RESOURCE INDICATORS	PHYSICAL EFFECTS	
GROUNDWATER CONTAMINANTS		
• PESTICIDES	N/A	
NUTRIENTS AND ORGANICS	N/A	
• SALINITY	N/A	
HEAVY METALS	N/A	
• PATHOGENS	N/A	
• OTHER		
SURFACE WATER CONTAMINANTS		
• PESTICIDES	N/A	
NUTRIENTS AND ORGANICS	N/A	
SUSPENDED SEDIMENTS	sign. reduction in SWater contam./susp. sedi.	
LOW DISSOLVED OXYGEN	N/A	
• SALINITY	insignificant	
HEAVY METALS	N/A	
WATER TEMPERATURE	N/A	
• PATHOGENS	N/A	
AQUATIC HABITAT SUITABILITY	N/A	
OTHER		
RESOURCE: AIR		
RESOURCE CONCERN: AIR QUALI	TY	
AIRBORNE SEDIMENT AND SMOKE		
PARTICLES		
ONSITE SAFETY	N/A	
OFFSITE SAFETY	N/A	
ONSITE STRUCT. PROBLEMS	N/A	
OFFSITE STRUCT. PROBLEMS	N/A	
ONSITE HEALTH	N/A	
OFFSITE HEALTH	N/A	
AIRBORNE SEDIMENT CAUSING	N/A	
CONVEYANCE PROBLEMS		
AIRBORNE CHEMICAL DRIFT	N/A	
AIRBORNE ODORS	N/A	
FUNGI, MOLDS, AND POLLEN	N/A	
OTHER		
RESOURCE CONCERN: AIR CONDITION		
AIR TEMPERATURE	N/A	
AIR MOVEMENT (windbreak effect)	N/A	
HUMIDITY	N/A	
OTHER		

RESOURCE: PLANT	
RESOURCE CONCERN: SUITABILIT	Y
RESOURCE INDICATORS	PHYSICAL EFFECTS
SITE ADAPTATION	N/A
PLANT USE	N/A
OTHER	
RESOURCE CONCERN: CONDITION	
PRODUCTIVITY	N/A
HEALTH, VIGOR, SURVIVAL	N/A
OTHER	
RESOURCE CONCERN: MANAGEMI	ENT
ESTAB., GROWTH, HARVEST	N/A
NUTRIENT MANAGEMENT	N/A
PESTS	N/A
THREAT/ENDANGERED PLANTS OTHER	N/A
RESOURCE: ANIMAL	
RESOURCE CONCERN: HABITAT	
FOOD	slight improvement in animal habitat/food supply
COVER/SHELTER	slight improvement in animal habitat/cover,shelter
WATER (QUANTITY & QUALITY)	sign. improvement in animal habitat/water\
OTHER	
RESOURCE CONCERN: MANAGEMI	ENT
POPULATION BALANCE	slight improvement in animal mgt./pop. balance
THREAT/ENDANGERED ANIMALS	slight benefit to threat./endangered animals
HEALTH	slight improvement in animal mgt./health
OTHER	
RESOURCE: HUMAN	
RESOURCE CONCERNS: ECONOMIC	C CONSIDERATIONS
PLAN / COST EFFECTIVENESS	significantly cost effective
CLIENT FINANCIAL CONDITION	N/A
MARKETS FOR PRODUCTS	N/A
AVAILABLE LABOR	N/A
AVAILABLE EQUIPMENT	N/A

RESOURCE: HUMAN		
RESOURCE CONCERN: SOCIAL CONSIDERATIONS		
RESOURCE INDICATORS	PHYSICAL EFFECTS	
PUBLIC HEALTH AND SAFETY	sign. improvement in public health & safety	
PRIVATE/PUBLIC VALUES	sign. improvement in private/public values	
CLIENT CHARACTERISTICS	N/A	
RISK TOLERANCE	N/A	
TENURE	N/A	
OTHER		
RESOURCE CONCERN: CULTURAL CONSIDERATIONS		
ABSENCE/PRESENCE OF CULTURAL RESOURCES	situational regarding cultural resources	
SIGNIFICANCE OF CULTURAL RESOURCES	situational regarding cultural resources	
MITIGATION OF NEGATIVE CULTURAL RES. IMPACTS	situational regarding cultural resources	
OTHER		